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DICTIONARY FILE UPDATES: 18 DEC 2008 HIGHEST RN 1086785-80-9

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<http://www.cas.org/support/stngen/stndoc/properties.html>

=> E "SOLDIUM DODECYL SULFATE"/CN 25

E1	1	SOLDINE CP 13D/CN
E2	1	SOLDINE CS 50/CN
E3	0 -->	SOLDIUM DODECYL SULFATE/CN
E4	1	SOLDOL E/CN
E5	1	SOLDUR/CN
E6	1	SOLDUR 315/CN
E7	1	SOLDUR 340/CN
E8	1	SOLDUR 355/CN
E9	1	SOLDUR 560/CN
E10	1	SOLDUR 690/CN
E11	1	SOLDUS/CN
E12	1	SOLE BLUE 33/CN
E13	1	SOLE TEGE TS 25/CN
E14	1	SOLE TERGE 8/CN
E15	1	SOLEAL/CN
E16	1	SOLEAN VDA/CN
E17	1	SOLECRAN/CN
E18	1	SOLEDON BLUE 2RC/CN
E19	1	SOLEDON BLUE 2RCX/CN
E20	1	SOLEDON BLUE 4BC/CN
E21	1	SOLEDON BLUE IBC/CN
E22	1	SOLEDON BLUE O 4B/CN
E23	1	SOLEDON BRILLIANT ORANGE 6R/CN
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E4 1 SOLIUS BLUE FG/CN
E5 1 SOLIUS BLUE GR/CN
E6 1 SOLIUS BORDEAUX 5B/CN
E7 1 SOLIUS BRILLIANT VIOLET 2R/CN
E8 1 SOLIUS BROWN RT/CN
E9 1 SOLIUS BROWN T/CN
E10 1 SOLIUS LIGHT BLUE 2FGL/CN
E11 1 SOLIUS LIGHT BLUE 6G/CN
E12 1 SOLIUS LIGHT BLUE BL/CN
E13 1 SOLIUS LIGHT BLUE BR/CN
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E15 1 SOLIUS LIGHT BLUE F 3R/CN
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E17 1 SOLIUS LIGHT BLUE G/CN
E18 1 SOLIUS LIGHT BLUE GL/CN
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E21 1 SOLIUS LIGHT BROWN BRS/CN
E22 1 SOLIUS LIGHT BROWN G/CN
E23 1 SOLIUS LIGHT BROWN R/CN
E24 1 SOLIUS LIGHT BROWN T/CN
E25 1 SOLIUS LIGHT GREEN 2B/CN

=> E "SODIUM DODECYL SULFATE"/CN 25
E1 1 SODIUM DODECYL PENTA(OXYETHYLENE) SULFATE/CN
E2 1 SODIUM DODECYL PHOSPHATE, (C12H25O)(NAO)2PO/CN
E3 1 --> SODIUM DODECYL SULFATE/CN
E4 1 SODIUM DODECYL SULFATE HEMIHYDRATE/CN
E5 1 SODIUM DODECYL SULFATE HYDRATE (8:1)/CN
E6 1 SODIUM DODECYL SULFATE MONOHYDRATE/CN
E7 1 SODIUM DODECYL SULPHATE/CN
E8 1 SODIUM DODECYL THIOSULFATE/CN
E9 1 SODIUM DODECYL TRITHIOCARBONATE/CN
E10 1 SODIUM DODECYL-2,3-3H SULFATE/CN
E11 1 SODIUM DODECYL-2-SULFATE/CN
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E13 1 SODIUM DODECYL-POLYOXYETHYLENE-3-SULFATE/CN
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E24 1 SODIUM DODECYLDIPHENYL ETHER DISULFONATE/CN
E25 1 SODIUM DODECYLDIPHENYL OXIDE DISULFONATE/CN

=> S E3
L1 1 "SODIUM DODECYL SULFATE"/CN

=> l L1 chem
MISSING OPERATOR

=> sel L1 chem
E1 THROUGH E236 ASSIGNED

=> b caplus			
COST IN U.S. DOLLARS	SINCE FILE	TOTAL	
FULL ESTIMATED COST	ENTRY	SESSION	
	6.89	7.10	

FILE 'CAPLUS' ENTERED AT 14:16:08 ON 19 DEC 2008
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FILE COVERS 1907 - 19 Dec 2008 VOL 149 ISS 26
 FILE LAST UPDATED: 18 Dec 2008 (20081218/ED)

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<http://www.cas.org/legal/infopolicy.html>

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=> s 151-21-3/biol,uses,ract,anst
    42653 151-21-3
    7622391 BIOL/RL
        12675 151-21-3/BIOL
            (151-21-3 (L) BIOL/RL)
        42653 151-21-3
    7334515 USES/RL
        22186 151-21-3/USES
            (151-21-3 (L) USES/RL)
        42653 151-21-3
    3206166 RACT/RL
        1057 151-21-3/RACK
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        42653 151-21-3
    1243006 ANST/RL
        3641 151-21-3/ANST
            (151-21-3 (L) ANST/RL)
L2      31430 151-21-3/BIOL,USES,RACK,ANST
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    2621233 PROTEIN
        (PROTEIN OR PROTEINS)
    22842331 A
    476556 PROTEIN (2A) A
    4339 SPA
    596 SPAS
    4734 SPA
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(SPA OR SPAS)
L3 5624 L2 AND (PROTEIN (2A) A) OR SPA

=> s L3 and staphylococc##
87315 STAPHYLOCOC##
L4 775 L3 AND STAPHYLOCOC##

=> s L2 (s) (protein (2a) a) or spa
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L2 (S)'
2243533 PROTEIN
1583071 PROTEINS
2621233 PROTEIN
(PROTEIN OR PROTEINS)
22842331 A
476556 PROTEIN (2A) A
4339 SPA
596 SPAS
4734 SPA
(SPA OR SPAS)
L5 5624 L2 (S) (PROTEIN (2A) A) OR SPA

=> s L5 (s) staphylococc##
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L5 (S) STAPHYLOC'
87315 STAPHYLOCOC##
L6 775 L5 (S) STAPHYLOCOC##

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11361 SKINS
298693 SKIN
(SKIN OR SKINS)
59957 DERM#####
83846 EPIDERM##
L7 35 L6 AND (SKIN OR DERM##### OR EPIDERM##)

=> s L7 and py<2005
25117802 PY<2005
L8 13 L7 AND PY<2005

=> d L8 ibib abs 1-13

L8 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1071997 CAPLUS <<LOGINID::20081219>>
DOCUMENT NUMBER: 142:51899
TITLE: Emergence of Panton-Valentine leukocidin positive
community-acquired methicillin-resistant
Staphylococcus aureus. Status of infection and
bacteriological features
AUTHOR(S): Yamamoto, Tatsuo; Taneike, Ikue; Nakagawa, Saori;
Iwakura, Nobuhiro
CORPORATE SOURCE: Division of Bacteriology, Department of Infectious
Disease Control and International Medicine, Niigata
University Graduate School of Medical and Dental
Sciences, Niigata, Japan
SOURCE: Nippon Kagaku Ryoho Gakkai Zasshi (2004),
52(11), 635-653
CODEN: NKRZE5; ISSN: 1340-7007
PUBLISHER: Nippon Kagaku Ryoho Gakkai
DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

AB A review. In the United States, children are reported to have died of community-acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA) infection between 1997 and 1999. During the same period, CA-MRSA was also isolated and reported in Europe and Australia. The characteristics of the pathogen were clarified, and CA-MRSA infection became the focus of global attention as a global infection. CA-MRSA differs from conventional MRSA (hospital-acquired MRSA, HA-MRSA) in origin. It produces a leukocidin, PVL, and in many cases, has a type IV methicillin-resistance region (type IV SCCmec). Genetically, CA-MRSA consists of several different continent-specific clones. Anal. such as multi-locus sequence typing (MLST), spa typing, agr allele anal., and toxin gene pattern anal. are used. One clone has thus far been confirmed in Europe, several in the United States, 2 in Oceania, and 2 prevalent in Asia. Drug sensitivity depends on the type of prevalent clone, and some strains of CA-MRSA are susceptible to many antimicrobial agents other than penicillin/cephems. In many cases, such CA-MRSA is associated with skin/soft tissue infection, and is frequently detected in children. Fatal necrotizing pneumonia and bacteremia appear to the increasing. CA-MRSA in Japan differs from European and North American cases in that; the proportion of PVL-neg. strains is relatively high and genetic features vary. PVL-pos. CA-MRSA, which is rarely isolated, is common to Oceania CA-MRSA in many respects, although not identical, rather than to European and North American CA-MRSA. PVL-pos. CA-MRSA infection is spreading even among young, healthy individuals. A survey on the worldwide distribution, identification of populations and areas at high risk for colonization and infection, and anal. of the detailed infectious mechanism are currently under way.

L8 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:1037340 CAPLUS <<LOGINID::20081219>>
 DOCUMENT NUMBER: 141:420399
 TITLE: Method of screening inhibitor by using induction of interleukin 18 production by keratinocyte, method of inducing atopic dermatitis-like symptom and utilization of the same
 INVENTOR(S): Nakanishi, Kenji; Mizutani, Hitoshi; Tsutsui, Hiroko
 PATENT ASSIGNEE(S): Japan Science and Technology Agency, Japan
 SOURCE: PCT Int. Appl., 49 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004104578	A1	20041202	WO 2004-JP5747	20040421 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004241513	A1	20041202	AU 2004-241513	20040421 <--
AU 2004241513	B2	20070920		

CA 2523297	A1	20041202	CA 2004-2523297	20040421 <--
EP 1635176	A1	20060315	EP 2004-728686	20040421
R: CH, DE, FR, GB, IT, LI				
CN 1777807	A	20060524	CN 2004-80010993	20040421
US 20070092448	A1	20070426	US 2005-554301	20051024
AU 2007242943	A1	20080110	AU 2007-242943	20071212
KR 2008049851	A	20080604	KR 2008-710777	20080502
PRIORITY APPLN. INFO.:			JP 2003-120630	A 20030424
			AU 2004-241513	A3 20040421
			WO 2004-JP5747	W 20040421
			KR 2005-720134	A3 20051022

AB It is intended to provide various methods appropriately usable in clarifying the onset mechanism of atopic dermatitis (AD) and symptoms similar thereto and a remedy therefor with the use of the phenomenon of inducing the production of interleukin 18 (IL-18) by keratinocytes (KC) and methods of utilizing the same. IgE expression at a high level in the serum, which is observed in an AD-like lesion, can be reproduced by, for example, applying *Staphylococcus aureus*-origin protein A (SpA) on mouse skin or the like or transplanting a skin piece having an AD-like inflammatory lesion to a mouse or the like. Thus, it becomes possible to screen, for example, an inhibitor of the induction of IL-18 production by KC.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:246631 CAPLUS <>LOGINID::20081219>>
 DOCUMENT NUMBER: 140:386770
 TITLE: Distribution of virulence genes of *Staphylococcus aureus* isolated from stable nasal carriers
 AUTHOR(S): Nashev, Dimitar; Toshkova, Katia; Salasia, S. Isrina O.; Hassan, Abdulwahed A.; Lammle, Christoph; Zschock, Michael
 CORPORATE SOURCE: National Center of Infectious and Parasitic Diseases, Sofia, 1504, Bulg.
 SOURCE: FEMS Microbiology Letters (2004), 233(1), 45-52
 CODEN: FMLED7; ISSN: 0378-1097
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB In the present study, we report data on virulence determinants of *Staphylococcus aureus* from stable nasal carriers, emphasizing on the genes encoding fibronectin (fnbA, fnbB) and collagen (cna) adhesive mols. Of the 44 *S. aureus* isolates included, 32 isolates (16 pairs) were cultured from the anterior nares of 16 healthy carriers, eight isolates (four pairs) were collected from the nose of four patients with recurrent skin infections and four isolates were obtained from the infection site of these patients. The period between the two nasal swabs taken was 3-5 days. The persistency of carriage could be demonstrated by the indistinguishable genotypic characteristics of the *S. aureus* isolates in each pair. This could be shown by determination of gene polymorphisms of coagulase gene

and the X-region and IgG-binding region encoding segments of spa gene. In addition, the isolates within the pairs showed identical toxin patterns. This was determined by PCR amplification of the genes encoding staphylococcal enterotoxins (SEA to SEJ) and TSST-1. The genotypic properties also yielded an identity between persistent nasal carriage isolates and the corresponding skin infection isolates

of the four patients. In addition, all *S. aureus* nasal and skin infection isolates were pos. for gene fnbA, fnbB and cna could be found with a high frequency. Among the 44 isolates investigated, 16 isolates (36.7%) harbored gene fnbB and 21 isolates (47.7%) gene cna. The data in the present study showed a relatively wide distribution of the genes fnb and cna among the investigated isolates, indicating that the persistent carriage of strains harboring these virulence determinants may increase the risk for subsequent invasive infections in carriers.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:610641 CAPLUS <<LOGINID::20081219>>
 DOCUMENT NUMBER: 139:160763
 TITLE: Hybrid plasmid pZZSA coding the synthesis of angiogenin protein and *Escherichia coli* BL21 (DES) pZZSA strain as the superproducer of the recombinant chimeric protein of human angiogenin
 INVENTOR(S): Ramazanov, Yury Akhmetovich; Mertvetsov, Nikolai Pavlovich; Maistrenko, Valentina Fedorovna
 PATENT ASSIGNEE(S): Russia
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003064660	A1	20030807	WO 2003-RU49	20030130 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
RU 2221043	C2	20040110	RU 2002-102856	20020131 <--
US 20050148061	A1	20050707	US 2004-502554	20040722
PRIORITY APPLN. INFO.:			RU 2002-102856	A 20020131
			WO 2003-RU49	W 20030130

AB The invention relates to biotechnol. and increases the expressive efficiency of a hybrid gene and the stability of an angiogenin protein and makes it possible to clean by affinity a chimeric protein on IgG-sorbents. The engineered hybrid plasmid pZZSA coding the synthesis of the chimeric angiogenin protein which has a mol. mass of 3.814, a megadalton (Md) (6192 p.o.), contains as follows: -XhoI/EcoRI-of the fragment of the plasmid DNA pGM280 (3720 p.o.); -EcoRI/EcoNI of the fragment of the PfM plasmid (2500 p.o.); -tandem of promoters of a tryptophan operon *E.coli*; -synthetic chimeric angiogenin gene (Ang), combined with Spa; -genetic marker- gene bla beta-lactamase which dets. the stability of the transformed plasmids pZZA of *E.coli* cells to ampicillin; -unique sites for recognizing with the aid of restricting endonucleases which are disposed at the following distances to the right of the EcoRI site (192 p.o.) with the following coordinates: EcoRI-192p.o., XbaI-276 p.o., BgI II-342 p.o., SphI-539 p.o., EcoNI-599 p.o., MluI-1064 p.o. The *Escherichia coli* BL21 (DES) pZZSA MCKM B-127 strain is the superproducer of recombinant chimeric

protein-angiogenin.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:494570 CAPLUS <<LOGINID::20081219>>
DOCUMENT NUMBER: 139:194200
TITLE: Alternative roles of ClpX and ClpP in *Staphylococcus aureus* stress tolerance and virulence
AUTHOR(S): Frees, Dorte; Qazi, Saara N. A.; Hill, Philip J.; Ingmer, Hanne
CORPORATE SOURCE: Department of Veterinary Microbiology, Royal Veterinary and Agricultural University (KVL), Frederiksberg C, DK-1870, Den.
SOURCE: Molecular Microbiology (2003), 48(6), 1565-1578
CODEN: MOMIEE; ISSN: 0950-382X
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Clp proteolytic complexes are essential for virulence and for survival under stress conditions in several pathogenic bacteria. Recently, a study using signature-tagged mutagenesis identified the ClpX ATPase as also being required for virulence in *Staphylococcus aureus*. Presently, we have constructed deletion mutants removing either ClpX or the proteolytic subunit, ClpP, in *S. aureus* 8325-4 in order to examine a putative link between stress tolerance and virulence. When exposed to stress, we found that, although clpP mutant cells were sensitive to conditions generating misfolded proteins, the absence of ClpX improved survival. In the presence of oxidative stress or at low temperature, both ClpP and ClpX were important for growth. Virulence was examined in a murine skin abscess model and was found to be severely attenuated for both mutants. *S. aureus* pathogenicity is largely dependent on a set of extracellular and cell wall-associated proteins. In the mutant cells, the amount of α -hemolysin (hla) and several other extra-cellular proteins was greatly decreased, and anal. of hla expression revealed that the reduction occurred at the transcriptional level. Essential for transcriptional regulation of hla is the quorum-sensing agr locus. Interestingly, the absence of ClpX or ClpP reduced both transcription of the agr effector mol., RNA III, and the activity of the autoinducing peptide (AIP). In addition, ClpX was required independently of ClpP for transcription of spa encoding Protein A. Thus, our results indicate that ClpX and ClpP contribute to virulence by controlling the activity of major virulence factors rather than by promoting stress tolerance.

REFERENCE COUNT: 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:325050 CAPLUS <<LOGINID::20081219>>
DOCUMENT NUMBER: 139:83790
TITLE: Persistent secretion of IL-18 in the skin contributes to IgE response in mice
AUTHOR(S): Nakano, Hiroki; Tsutsui, Hiroko; Terada, Makoto; Yasuda, Koubun; Matsui, Kiyoshi; Yumikura-Futatsugi, Shizue; Yamanaka, Kei-Ichi; Mizutani, Hitoshi; Yamamura, Takehira; Nakanishi, Kenji
CORPORATE SOURCE: Department of Immunology & Medical Zoology, Hyogo College of Medicine, Nishinomiya, 663-8501, Japan
SOURCE: International Immunology (2003), 15(5), 611-621

CODEN: INIMEN; ISSN: 0953-8178

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB After exposure of the skin to microbes, the host develops skin-specific inflammation and an acquired immune response, in which keratinocytes (KC) and Langerhans cells play critical roles resp. We established two animal models. First, we examined the importance of KC-derived IL-18 for the systemic IgE response by using a skin transplantation model. As previously reported, transgenic mice (KCASP1Tg), that over-express caspase-1 in their KC, display high serum levels of IgE, and spontaneously develop chronic dermatitis by production of IL-18 and IL-1 β . We examined the capacity of transplantation of cutaneous lesions from KCASP1Tg to induce IgE production in wild-type or mutant mice with a syngeneic background. Transplantation of active cutaneous lesions, that expressed high levels of IL-18 and IL-1 β , induced long-lasting IgE production in wild-type mice without elevation of circulating IL-18 and IL-1 β . Furthermore, IL-18R-, CD4- or stat6-deficient mice transplanted with the lesions did not produce IgE, indicating that this IgE response is initiated by IL-18, and dependent on host-derived CD4+ T cells and stat6. Second, we investigated IL-18 secretion from KC upon stimulation with microbe products. Freshly isolated KC from wild-type mice secreted IL-18 in response to Protein A purified from Cowan 1 strain of *Staphylococcus aureus* (SpA), which often exacerbates human skin diseases, including atopic dermatitis. Cutaneous application of SpA increased serum levels of IL-18 and IgE. These results indicate that local accumulation of IL-18 triggers systemic IgE responses without exposure to antigen.

L8 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:591683 CAPLUS <<LOGINID::20081219>>

TITLE: The significance of nasal carriage of *Staphylococcus aureus* as risk factor for human skin infections

AUTHOR(S): Toshkova, K.; Annemuller, C.; Akineden, O.; Lammle, C.

CORPORATE SOURCE: National Center of Infectious and Parasitic Diseases, Sofia, Bulg.

SOURCE: FEMS Microbiology Letters (2001), 202(1), 17-24

CODEN: FMLED7; ISSN: 0378-1097

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The present study was designed to investigate the significance and the relationship between nasal carriage of *Staphylococcus aureus* and staphylococcal skin infections. Thirty-one *S. aureus* strains, isolated from 12 patients with chronic and recurrent skin infections, one patient with septicemia and one patient with otitis externa were studied. The staphylococcal strains were isolated from the site of infection and from the anterior nares of each patient. The identity of both strains of each pair could be demonstrated by determination

of phenotypic properties and by genotyping of the isolates. The phenotypic properties included hemolytic activities, antibiotic resistance data, and the production of enterotoxins. The identity was addnl. confirmed by phage-typing, by determination of the size and the number of repeats of the

X

region of spa gene, by determination of gene polymorphisms of coa gene and by macrorestriction anal. of the chromosomal DNA of the isolates by

pulsed-field gel electrophoresis. The present results showed an identity of the *S. aureus* obtained from anterior nares and from skin infection of each patient indicating the importance of nasal carriage of these bacteria for development of human skin infection.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:306940 CAPLUS <>LOGINID::20081219>>
DOCUMENT NUMBER: 134:306052
TITLE: Evaluation of bacteriological characteristics for clonal typing of *Staphylococcus aureus* isolated from clinical sources
AUTHOR(S): Tachi, Hidemi; Sakurada, Junji; Hirota, Yasuhisa; Seki, Keiko
CORPORATE SOURCE: Dep. Microbiol. (II), The jikei Univ. Sch. Med., Japan
SOURCE: Tokyo Jikeikai Ika Daigaku Zasshi (2001), 116(2), 111-119
CODEN: TJIDAH; ISSN: 0375-9172
PUBLISHER: Tokyo Jikeikai Ika Daigaku Seiikai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB New markers for clonal identification of *Staphylococcus aureus* strains were devised. The γ -hemolysin gene locus was classified as "normal" or "abnormal" according to the product pattern of polymerase chain reaction (PCR). Protein A genes were classified into 5 types with PCR and into 10 subtypes with Hing III digestion. The Panton-Valentine leucocidin gene was also used as a new marker with PCR. Interestingly, only some of strains which had "abnormal" γ -hemolysin genes also had the Panton-Valentine leucocidin gene. To confirm the usefulness of these new markers, they were used with conventional counterparts, including coagulase serotyping, producibility of enterotoxins, toxic shock syndrome toxin-1, and PCR detections of exfoliative toxin genes, to investigate bacteriol. profiles of strains isolated from healthy volunteers and patients with atopic dermatitis.

L8 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:608280 CAPLUS <>LOGINID::20081219>>
DOCUMENT NUMBER: 129:301239
ORIGINAL REFERENCE NO.: 129:61422a
TITLE: Role of *Staphylococcus aureus* surface-associated proteins in the attachment to cultured HaCaT keratinocytes in a new adhesion assay
AUTHOR(S): Mempel, Martin; Schmidt, Tanja; Weidinger, Stephan; Schnopp, Christina; Foster, Timothy; Ring, Johannes; Abeck, Dietrich
CORPORATE SOURCE: Department of Dermatology and Allergy, Munich, Germany
SOURCE: Journal of Investigative Dermatology (1998), 111(3), 452-456
CODEN: JIDEAE; ISSN: 0022-202X
PUBLISHER: Blackwell Science, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Colonization of human skin with *Staphylococcus aureus* is a common feature in a variety of dermatol. diseases. In order to reproducibly investigate the adherence of *Staphylococcus aureus* to human epidermal cells, an in vitro assay was established using the biotin/streptavidine labeling system and the HaCaT cell line. This assay was used to define the role of several *Staphylococcus aureus* surface proteins with regard to their function in the staphylococcal adhesion process. Our studies

included the standard laboratory strain Newman as well as its genetically constructed mutants DU5873, DU5852, DU5854, and DU5886 generated by allele replacement or transposon mutagenesis, which are deficient in the elaboration of staphylococcal protein A (spa), clumping factor (clfA), coagulase (coa), and the fibronectin-binding proteins A and B (fnBA/B), resp. In comparison with strain Newman all mutants showed remarkably reduced adherence to the HaCaT keratinocyte cell line in our assay, yielding only between 43% and 60% of the adherence capacity of strain Newman after 60 min. Bacterial adherence could be re-established by introducing the cloned wild-type genes for the surface proteins on shuttle plasmids into the chromosomally defective mutants, thus suggesting a pathogenetic role of these proteins in the attachment of *Staphylococcus aureus* to human keratinocytes. Bacterial adherence was addnl. enhanced by alkaline pH values that are characteristic for skin conditions with epidermal barrier dysfunction. The use of *Staphylococcus aureus* mutant strains, deficient in the elaboration of defined proteins, allows specific investigation of colonization and virulence factors of this dermatol. relevant microorganism.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:4737 CAPLUS <>LOGINID::20081219>>
DOCUMENT NUMBER: 128:79872
ORIGINAL REFERENCE NO.: 128:15523a,15526a
TITLE: Altered immune response to staphylococcal antigens in long-lasting implanted mice
AUTHOR(S): Sadowska, Beata; Zoladek, Joanna; Ljungh, Asa;
Rudnicka, Wieslawa; Rozalska, Barbara
CORPORATE SOURCE: Dep. Infectious Biol., Inst. Microbiol. Immunol.,
Univ. Lodz, Pol.
SOURCE: Acta Microbiologica Polonica (1997), 46(3),
253-261
CODEN: AMPOAX; ISSN: 0137-1320
PUBLISHER: Polskie Towarzystwo Mikrobiologow
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Staphylococcal infections constitute one of the main problems associated with clin. applications of various prosthetic medical devices (biomaterials). As the magnitude of the infection risk depends often on the duration of device installation, and the incidence of infections is higher in skin-penetrating devices, we studied some parameters of specific immune response to staphylococcal antigens in mice s.c. implanted for three months with heparinized polyethylene (H-PE). Three weeks before the evaluation of immune response, mice (implanted and non-implanted) were s.c. infected with 10⁷ of *Staphylococcus aureus* Cowan 1. The proliferation of lymph node cells was determined on the basis of 3H-thymidine incorporation in 3-days cultures stimulated with: staphylococcal lipoteichoic acid (LTA), protein A (SpA), α -toxin, or with phytohemagglutinin (PHA). Moreover, the levels of specific antibodies to staphylococcal antigens were determined in serum samples (ELISA against: LTA, SpA, α -toxin). The data obtained indicate that long-lasting implantation caused evident changes in proliferative activity of lymphocytes and humoral response to staphylococcal antigens. It enhances α -toxin and LTA stimulated proliferation of lymph node lymphocytes in vitro. In contrast, H-PE-implanted animals demonstrated a significant decrease in the production of anti-SpA IgG2a and IgG2b and increase in the synthesis of anti-LTA IgG1 antibodies.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1987:47614 CAPLUS <<LOGINID::20081219>>
DOCUMENT NUMBER: 106:47614
ORIGINAL REFERENCE NO.: 106:7853a,7856a
TITLE: Selective binding of colloidal gold-protein conjugates to epidermal phosphorus-rich keratohyaline granules and cornified cells
AUTHOR(S): Jessen, Harry; Behnke, Olav
CORPORATE SOURCE: Inst. Anat. C, Univ. Copenhagen, Copenhagen, DK-2200, Den.
SOURCE: Journal of Investigative Dermatology (1986), 87(6), 737-40
CODEN: JIDEAE; ISSN: 0022-202X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Colloidal Au solns. conjugated with staphylococcal protein A (SpA) are widely used in high-resolution immunocytochem. studies to visualize antibodies bound at antigenic sites. Colloidal Au solns. conjugated with SpA, bovine serum albumin (BSA), or gelatin bound selectivity to structures in glutaraldehyde-fixed, plastic-embedded epidermis of rabbit, mouse, and human. Two types of keratohyaline granules (KGs) are present in epidermis, a P-rich (PR) and a S-rich (SR) type. The PR KGs were strongly labeled with Au particles, whereas SR KGs or other structures in the living cells of epidermis were unlabeled. The PR KGs are assumed to be precursors of the matrix protein of cornified cells, and intense Au labeling occurred over the lower layer of cornified cells (i.e., stratum lucidum). More superficial cornified cells were weakly labeled or unlabeled. The Au labeling pattern was identical whether SpA, BSA, or gelatin was used to stabilize the colloidal Au solution. The mechanism of binding of protein-conjugated Au to PR KGs and matrix protein of cornified cells is not clear. It is speculated that the charged Au particles are not completely coated by the stabilizing protein, allowing for an electrostatic interaction with charged proteins in sections of cells.

L8 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:586868 CAPLUS <<LOGINID::20081219>>
DOCUMENT NUMBER: 105:186868
ORIGINAL REFERENCE NO.: 105:30093a,30096a
TITLE: Non-specific binding of protein-stabilized gold sols as a source of error in immunocytochemistry
AUTHOR(S): Behnke, Olav; Ammitzboell, Thorkild; Jessen, Harry; Klokker, Mads; Nilausen, Karin; Tranum-Jensen, Joergen; Olsson, Lennart
CORPORATE SOURCE: Inst. Atat., Univ. Copenhagen, Copenhagen, Den.
SOURCE: European Journal of Cell Biology (1986), 41(2), 326-38
CODEN: EJCBDN; ISSN: 0171-9335
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The observation that protein-A conjugated Au sols bound to fibronectin-collagen (FNC) fibers in human fibroblast cultures prompted a series of studies on the binding of Au particles stabilized in various ways [Staphylococcal protein A, bovine serum albumin, avidin, streptavidin, gelatin, Hb, polyethylene glycol (mol. weight 20,000), methylcellulose, and the nonionic detergent Tween 20] to cell and tissue components, to protein dot blots and SDS-PAGE blots on nitrocellulose paper. Binding of Au particles to certain cell and tissue components and to various immobilized proteins was found to occur irresp. of the

stabilizing agent. It is argued that, albeit Au sols are stabilized against salt coagulation by adsorption of proteins and other stabilizing agents, naked ares are (constantly or intermittently) present on particle surfaces, available for interaction with cell and tissue components that have a high electrostatic affinity for the charged Au surface under prevailing exptl. conditions. Nonspecific binding may be reduced or abolished by competing protein (i.e., proteins with a higher affinity for Au than any component in the object studied) provided the proteins and the Au conjugate are present concomitantly during incubation. It was found that gelatin (Bloom number 30-100) was an effective competitive protein, probably due to its high affinity for Au over a wide pH range. Further, gelatin did not appreciably inhibit the specific interaction in dot blots between SpA and IgG except at very low IgG concns. A protocol for the use of Au protein conjugates to circumvent the hazards of unspecific Au binding is suggested.

L8 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:475153 CAPLUS <<LOGINID::20081219>>

DOCUMENT NUMBER: 105:75153

ORIGINAL REFERENCE NO.: 105:12145a,12148a

TITLE: Highly sensitive immunoadsorption procedure for detection of low-abundance proteins

AUTHOR(S): Platt, Emily J.; Karlsen, Kinley; Lopez-Valdivieso, Alejandro; Cook, Paul W.; Firestone, Gary L.

CORPORATE SOURCE: Dep. Physiol.-Anat., Univ. California, Berkeley, CA, 94720, USA

SOURCE: Analytical Biochemistry (1986), 156(1), 126-35

CODEN: ANBCA2; ISSN: 0003-2697

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A procedure that virtually eliminates nonspecific adsorption of radiolabeled proteins during immunopptn. was devised utilizing staphylococcal cells containing protein A (Staph A). Immunoppts. (antigen-antibody complexes) were solubilized from Staph A pellets into detergent micelles by incubation in a small volume of 1% SDS at 23° for 10 min. To allow reformation of immunocomplexes and rebinding to new Staph A, the SDS-solubilized material was diluted 20-fold in buffer containing 1% Triton X 100 and 0.5% Na deoxycholate. Specific conductance measurements revealed that this solubilization and subsequent reimmuoadsorption of antibody-antigen complexes occur at SDS concns. that are 1st above and then below its critical micelle concentration This procedure lowered the nonspecific background from .apprx.2250 ppm to <25 ppm with a final recovery of 30-50% depending on the antigen and antibody. Chaotropic agents such as 2M urea, 0.2M KOH, and 3.5M MgCl₂ (as well as combinations of urea and SDS) can substitute for 1% SDS, although the final recovery is somewhat lower. Fluorog. of radiolabeled proteins obtained in this manner displays virtually undetectable background even for exposures as long as 2 mo. These methods allowed the unambiguous detection of low-abundance antigens at a high level of sensitivity, for example, mouse mammary tumor virus protein products and epidermal growth factor receptor.